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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/588,865 | 06/08/2007 | Vinciane De Cupere | VANM309.001APC | 4095 |
| 20995 7590 11/16/2009 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614 | | | EXAMINER JEAN-LOUIS, SAMIRA JM | |
| | | | ART UNIT 1627 | PAPER NUMBER |
| | | | NOTIFICATION DATE 11/16/2009 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/588,865 | Applicant(s) DE CUPERE ET AL. | |
| | Examiner SAMIRA JEAN-LOUIS | Art Unit 1627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-11 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>06/08/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based upon EP 04447032.6 filed on February 10, 2004. It is noted, however, that the EP foreign application does not provide support for the instant claims, since said foreign application does not disclose a tetra alkyloxy-substituted phthalocyanine derivative wherein $x=6-30$, $y=6-30$ and $z=0-30$. Thus, the priority date of the instant invention is January 18, 2005 (the date of the PCT application). Therefore, art prior to the PCT date, but not before the date of the EP application may be cited against the claims.

IDS

The information disclosure statement (IDS) submitted on 06/08/07 is acknowledged and has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS has been considered by the examiner.

Claim Rejections - 35 USC § 112 (Lack of Antecedent Basis)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 9 recite the limitations: "nitrophthalonitrile II in line 3" and "the alkoxyphthalonitrile IV in lines 7 and 9", however it is unclear where nitrophthalonitrile II or alkoxyphthalonitrile IV were previously mentioned. As for the limitations "the molar amount of an inorganic base in line 3" and "the molar amount of an alcohol III in line 5", the Examiner contends that such recitations lack antecedent basis since applicant did not previously recite any molar amount in the claims. As for the limitation "the mix up in lines 6 and 10", it is unclear as to what "mix up" applicant is referring to. Regarding the limitations "comprising said compound in line 8", "the molar amount of lithium in line 10", "the reaction medium in lines 12 and 14", and "the theoretical amount of the corresponding metal in line 13" of claim 6, it is unclear what compound applicant is referring to; what molar concentration, what reaction medium and what theoretical amount is applicant referring to since such limitations were never delineated in claim 1 or discussed in claims 6 or 9. As a result, the Examiner contends that there is insufficient antecedent basis for all of these limitations in the claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-6 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention (**see M.P.E.P 608.01 (k)**).

Claims 1-6 and 9-11 are particularly vague and indefinite given that applicant is claiming a phthalocyanine derivative of a structure 1 wherein M are two atoms "such as 2H or 2Li (**in sentence 3 of claim 1**). In this instance, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following said phrase are part of the claimed invention or simply a preferred embodiment. See MPEP § 2173.05(d).

As a result of the above inconsistencies, the aforementioned claims are unable to be examined as disclosed given that such terminology would lead to confusion over the intended scope of a claim and therefore would not be able to be determined by one of ordinary skill in the art. However, for the sake of compact prosecution, the Examiner will construe that such terminology is absent in the claims.

Claim Rejections - 35 USC § 103

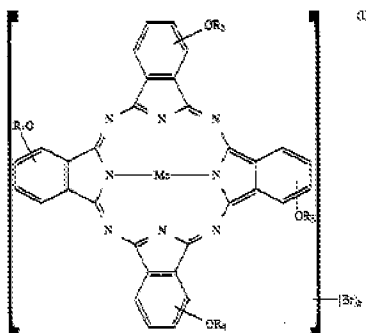
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Wolleb (U.S. 5,594,128).

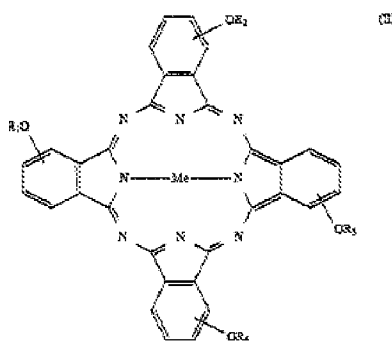
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Wolleb teaches a process for the preparation of a mixture of positionally isomeric brominated tetralkoxy metal phthalocyanines of formula I:



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where M is CuII, PdII, ZnII, SnII, NiII, CoII, PbII, MnO or V(O), x is 1 to 5, and R1 to R4 is independent of one another, branched C1-C16 alkyl that are unsubstituted that can be used as dyes for optical information recording, since they have high NIR absorption (see abstract and col. 3, lines 1-27). Particularly, Wolleb teaches that such end product is obtained by reacting a tetraalkoxy metal phthalocyanine of formula II:



wherein the preferred metal is Copper and R1 to R4 are branched C1-C16 alkyl groups and various positional isomers of hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, pentadecyl, and hexadecyl (see col. 3, lines 30-65 and col. 4, lines 9-10 and 18-28).

Wolleb does not specifically teach a *product* that is a tetraalkoxy-substituted phthalocyanine.

However, Wolleb does teach a first reactant that is a tetraalkoxy metal phthalocyanine of formula II with Copper as the preferred metal and wherein R1 to R4 can be a branched C1-C16 alkyl chains (see col. 3, lines 30-65 and col. 4, lines 9-10

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and 18-28). Since instant claim 1 states that n can be 0, x and y can be 6 or 7, and z can be 0-3, the Examiner contends that the aforementioned teachings of Wolleb does indeed encompass applicant's limitation delineated in claim 1 and thus render obvious instant claim 1.

Thus, to one of ordinary skill in the art at the time of the invention would have found it obvious to utilize the first reactant of Wolleb since Wolleb discloses such compound as a tetra-substituted alkoxy phthalocyanine that can be branched up to 16 carbon atoms. Thus, given the teachings of Wolleb, one of ordinary skill would have been motivated to utilize the tetra-substituted alkoxy phthalocyanine of Wolleb with the reasonable expectation of providing a compound that possesses high NIR (i.e. near infrared) absorption.

Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolleb (U.S. 5,594,128) as applied to claim 1 above and in further view of Bao (U.S. 5,969,376).

The Wolleb reference is as discussed above and incorporated by reference herein. However, Wolleb does not teach an electronic device containing the phthalocyanine derivative of claim 1.

Bao teaches film transistors in which the active layer is an ordered film of phthalocyanine coordination with field effect mobility (see abstract and col. 1, lines 54-56). Bao further teaches that examples of suitable phthalocyanines include copper phthalocyanine, zinc phthalocyanine, hydrogen phthalocyanine, and tin phthalocyanine and that such compounds form ordered films and exhibit higher field effect mobility (see abstract and col. 1, lines 58-63). Additionally, Bao teaches that organic semiconductor materials such as phthalocyanines offer processing advantages such as compatibility with flexible plastic substrates and ease of application (see col. 1, lines 10-18).

Thus, to one of ordinary skill in the art at the time of the invention would have found it obvious to utilize the phthalocyanine derivative of Wolleb into the film transistors of Bao since Bao teaches that these phthalocyanine derivatives are now known for the use of semiconductor devices for their compatibility in plastic substrates and known for their high field effect mobility. Thus, given the teachings of Wolleb and Bao, one of ordinary skill in the art at the time of the invention would have found it obvious to utilize the phthalocyanine derivative of Wolleb into the film transistor device of Bao with the reasonable expectation of providing a film transistor that is ordered and a transistor that possesses a high field effect mobility.

Conclusion

No claims are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samira Jean-Louis whose telephone number is 571-270-3503. The examiner can normally be reached on 7:30-6 PM EST M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J. L. /

Examiner, Art Unit 1617

10/06/2009

/SREENI PADMANABHAN/
Supervisory Patent Examiner, Art Unit 1627